



Wood River Refinery
P. O. Box 76
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Roxana, Illinois 62084

November 29, 2010

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. David Bloomberg
Manager, Compliance and Enforcement Section
Illinois Environmental Protection Agency
PO Box 19276
Springfield, IL 62794-9276

Director, Air Enforcement Division
Office of Regulatory Enforcement
U.S. Environmental Protection Agency
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Maureen Wozniak
Assistant Counsel
Illinois Environmental Protection Agency
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SUBJECT: CONOCOPHILLIPS WOOD RIVER REFINERY; CIVIL ACTION NO. H-05-0258, PARAGRAPH 217

Dear Sir or Madam:

Pursuant to paragraph 217 of the Consent Decree United States of America and the States of Illinois, Louisiana, and New Jersey, Commonwealth of Pennsylvania and the Northwest Clean Air Agency v. ConocoPhillips Company,; Civil Action No. H-05-0258, entered by the District Court for the Southern District of Texas on January 27, 2005, ConocoPhillips Wood River Refinery (WRR) is submitting this Compliance Assurance Plan. Per paragraphs 216 and 217, a plan is required when it appears the facility has a quarterly uncontrolled benzene quantity of 1.5 Mg or more, the source of which cannot be identified or is expected to recur. WRR's third quarter, 2010, end of line ("EOL") sampling indicates the refinery's quarterly uncontrolled benzene waste quantity under the Benzene Waste Operations NESHAP's program was greater than 1.5 Mg. As discussed in more detail below, WRR does not anticipate exceeding its 6.0 Mg annual BQ.

Summary

WRR's sampling plan requires quarterly sampling of the following EOL uncontrolled locations:

- Wastewater Treatment System Master Box
- Docks/CH-210
- Main Plant Groundwater (Well #83, Out of Service)
- Distilling West process sewer sump
- Solids Dewatering Facility Mix Tank (B-146)
- Primary Solids Decant Dumpster (Out of Service)

The Wastewater Treatment System Master Box received an average of approximately 5,800 gpm of process wastewater from the uncontrolled process sewer system during the third quarter, 2010. In combination with the observed third quarter benzene sampling concentrations, this flow rate resulted in a Master Box uncontrolled benzene quantity of 1.63 Mg. When combined with the other above EOL locations, the total quarterly uncontrolled benzene quantity was 2.2 Mg.

Background, Investigation and Forward Plans

The Master Box is comprised of many individual upstream waste streams (Points of Generation, or POG's). Nearly all of these streams are intermittent and correspond to manual drainage from a piece of process equipment, on-off pumpage from a process sewer sump, a sampling activity, or a short term maintenance activity. Duration of discharge and benzene concentration vary from stream to stream, and can even vary within each stream. As a result, measured Master Box benzene concentrations can be expected to vary considerably from one sampling event to another.


With this as background, the third quarter EOL benzene sampling conducted at the Master Box in early August indicated higher than normal levels of benzene (ranging from 1.7 to 8.4 mg/l). Additional sampling was conducted in order to more accurately represent benzene concentrations, which confirmed that results returned to normal ranges (0.2 – 0.3 mg/l) for the remainder of the quarter. The average concentration observed for the quarter was 0.56 mg/l.

Prior to and during the August sampling, the Benzene Extraction Unit (BEU) experienced relatively high levels of water in the unit as a result of a heat exchanger tube leak. In an effort to stabilize the operation of the unit, approximately 330 bbls of water were drained to the unit process sewer sump over a 17 hour time period in late July. Routine source control sampling conducted downstream of this unit provided no indication that the unit was the source of the elevated Master Box concentrations, and operating records do not indicate that the unit process sewer sump discharged to the process sewer system during this time period. However, because of the timing of the unit drainage relative to the sampling at the Master Box, we assume that the unit is the most likely source of the elevated results observed in early August at the Master Box EOL.

Please recall that the quarterly estimates for the CD semi-annual reports only consider the EOL samples, and not detailed POG calculations. Quarterly estimates are significantly different from the calculation methods used for the actual TAB. EOL samples should only be used as an indicator of a potential mass exceedance with an appropriate response, not as a direct comparison to the TAB. As discussed above, many individual streams have to be quantified in both quantity and concentration in order to calculate the actual TAB report. In this case, BEU waste streams are already being counted at the POG in both the TAB and BQ6 calculations. Included in the BEU streams is one waste stream which has already been identified as a > 0.05 Mg/yr stream and is sampled individually pursuant to the refinery's 2006 sampling plan each quarter. Because of this, we do not believe corrective action is necessary or required related to this particular quarter's exceedance. However, as a follow-up to this incident, we have implemented additional measures to more accurately monitor water volumes discharged from the BEU. These measurements will be used when determining compliance with the 2010 BQ6 option.

This event will have minimal impact on our BQ6 calculation, and we believe that our annual calculation will conclude that we are below 6 Mg for the calendar year. Please contact Jay Rankin at 618-255-2737 with any questions regarding the above information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael Bechtol', with a stylized flourish at the end.

Michael Bechtol
Director, Environmental

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